

2/10/04 AF/ 36726-72

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Appellants: Robert A. MacDonald et al.

Attorney Docket: KEY1019US

Serial No.: 09/312,352

Group Art Unit: 3672

Filed: May 14, 1999

Examiner: William P. Neuder

For: RETAINING WALL BLOCK

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TRANSMITTAL LETTER

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Commissioner for Patents  
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**GROUP 3600**

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Date:

February 9, 2004

Signature:

Jodi Jung

Name: Jodi Jung

Transmittal Letter  
Applicants: Robert A. MacDonald et al.  
Serial No.: 09/312,352

Attorney Docket: KEY1019US

A duplicate copy of this transmittal letter is attached.

Respectfully submitted,

Date: 2/9/04

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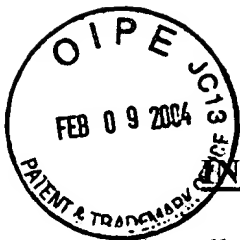
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#29 appeal  
Brief  
E. J. Jung  
2/25/04

**APPEAL BRIEF**

Mail Stop Appeal Brief-Patents  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Dear Sir:

This is a Brief in support of the Notice of Appeal filed December 8, 2003.  
As required by 37 C.F.R. 1.192(c), this brief contains the following items under  
the headings and in the order suggested therein.

**(1) REAL PARTY IN INTEREST**

The real party in interest is the assignee, Keystone Retaining Wall Systems,  
Inc., as stated on the assignment recorded June 28, 1999 in this application at Real  
No. 010053, Frame No.0490.

02/12/2004 AHONDAF1 00000045 09312352

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Date:

*February 9, 2004*

Signature:

*Jodi Jung*

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**(2) RELATED APPEALS AND INTERFERENCES**

There are no related appeals or interferences which will directly affect or be directly affected by or have a bearing on the decision of the Board of Patent Appeals and Interferences ("Board") in this appeal. A previous Decision on Appeal No. 2002-0757 in this application was mailed on March 31, 2003.

**(3) STATUS OF CLAIMS**

Claims 1 and 3 – 15 are pending. Claim 1 – 15 were originally filed in this application. Claim 2 was canceled and claims 1, 5, 8, 12, 13 and 14 were amended in an Amendment and Response dated January 19, 2001. Claims 1 and 3 – 15 were finally rejected in the March 1, 2001 Office Action and a Notice of Appeal was filed June 8, 2001. A Decision on Appeal No. 2002-0757 was mailed March 31, 2003, reversing the Examiner and remanding this application to the Examiner for consideration of the patentability of the claims under 35 U.S.C. 103(a) based upon a new ground of rejection issued by the Board. Claims 1 and 3 – 15 were again finally rejected in the Office Action of October 8, 2003.

**(4) STATUS OF AMENDMENTS**

No amendments were filed after the final rejection of October 8, 2003.

**(5) SUMMARY OF INVENTION**

The present invention (as shown in Figures 1 to 7, 11, and 12) is a symmetrical retaining wall block (1) in which neck wall members (14 and 15), pin holes (16 and 17) and pin receiving cavities (18 and 19) are positioned such that a first plane (P1, parallel to the plane of symmetry) passes through the first pin receiving cavity, the first pin hole and the first neck wall member and a second plane (P2, parallel to the plane of symmetry) passes through the second pin

receiving cavity, the second pin hole and the second neck wall member. Page 7, lines 13 to 18. The first and second planes are located approximately midway between the plane of symmetry and the outermost point of the side wall faces. Page 8, lines 21 to 23. The pin receiving cavities have a rear wall extending generally perpendicularly to the plane of symmetry. Page 9, lines 2 and 3.

The block also has third and fourth pin holes in the body portion that open onto the top face and receive a pin (see element 51 in Figure 10.). A free end of the pin protrudes beyond the top face. These pin holes (29 and 30) are disposed on the first and second planes forward of the first and second pin holes so as to provide a reduced or zero predetermined setback. Page 10, lines 1 to 3 and Figures 1 to 4. The side wall faces (6 and 7) generally taper from the front face (4) to the rear face (5). Page 11, lines 15 to 17 and Figures 1 and 2. The head portion has first and second ears extending laterally beyond the first and second neck wall members, respectively, and the ears are provided with a notch to enable the ears to be knocked off the head portion. Page 11, lines 19 to 24.

The present invention is a retaining wall comprising at least one lower course and at least one upper course, each course comprising a plurality of blocks laid in a running bond pattern. Page 11, lines 14 and 15, and Figures 8, 9, and 11 to 16. The wall is straight (page 11, line 14), curved (page 11, line 14), or serpentine (page 11, line 15). The wall may be reinforced with rebar and grouting, a length of the rebar passing through each of at least one of the cavities, each length of the rebar being secured in the respective the cavity with the grout. Page 12, lines 3 to 7.

The retaining wall may incorporate at least one post that is secured in the cavity with grout. Page 12, lines 25 to 27. The wall may incorporate a geogrid tie-back between two adjacent courses, secured with the pins passing through apertures of the geogrid. Page 12, lines 14 to 17. The wall may further incorporate a pilaster formed of a column of the blocks set forward from the remainder of the wall. Page 13, lines 2 to 5.

**(6) ISSUES**

Whether claims 1 and 3 to 15 are unpatentable under 35 U.S.C. § 103(a) as being obvious over Maguire et al. (U.S. Patent No. 5,951,210) in view of Dawson (U.S. Patent No. 5,913,790).

**(7) GROUPING OF CLAIMS**

Each of the claims is separately patentable. For the convenience of the Board, this Brief separately argues the patentability of each claim, *inter alia*, as follows:

Claim 1 – pages 5 through 15;

Claim 3 – page 10;

Claim 4 – page 11;

Claim 5 – page 11;

Claim 6 – page 13;

Claim 7 – pages 13 and 14;

Claims 8 and 9 – page 14;

Claims 10 and 11 – page 14 and 15;

Claims 12 and 13 – page 14; and

Claims 14 and 15 – page 15.

**(8) ARGUMENT**

Claims 1 and 3-15 stand finally rejected under 35 U.S.C. 103(a) as unpatentable over Maguire in view of Dawson. This is the sole rejection of record. Applicants respectfully traverse this rejection as unsupportable.

In remanding the present application to the Examiner, the Board directed the Examiner to:

...determine whether it would have been obvious to one having ordinary skill in the art to replace the round knobs of Maguire with pins in holes, in light of the apparent recognition by Maguire and Dawson of pins and knobs as alternatives, taking into account, of course, that Maguire indicates that knobs eliminate the need for using pins.

(Decision on Appeal 2002-0757, p. 7).

The Board further stated in a footnote that “[t]he statement by Maguire concerning eliminating the need for pins should be evaluated to determine whether it is a teaching away.” The Board provided further guidance by citing from *In re Gurley*, 27 F.3d 551, 553, 31 USPQ 2d 1130, 1131 (Fed. Cir. 1994):

A reference may be said to teach away when a person of ordinary skill, upon [examining] the reference, would be discouraged from following the path set out in the reference, or would be led in a direction divergent from the path that was taken by the applicant.

(Decision on Appeal 2002-0757, fn. 2, p. 7)

Judge Newman observed in *Gurley*:

The nature of the resin is the only significant difference from the prior art circuit material. ... The facts in *Gurley*’s record are that this use of epoxy was known, the structure of these circuit boards was known, and epoxy had been used for *Gurley*’s purpose.

*Id.*, 1131, 1132 (emphasis supplied).

By contrast, the claims of the present application represent many ‘significant differences’ from Dawson and Maguire. In regard to Dawson, present

claim 1 calls for “an opening extending through the neck portion from the top face to the bottom face.” Claim 8 calls for “a continuous cavity being defined by each opening of vertically aligned blocks in the upper course of the blocks communicating with side voids of vertically adjacent blocks in the lower course.” Dawson is specifically directed to constructing a plantable wall and his blocks 10 have a cavity 30 extending only to a bottom wall 32, so that the cavity 30 may accommodate soil and vegetation (FIGS. 1-11; col. 5, line 50 – col. 6, line 25).

Many other significant differences between Dawson and Maguire establish that the present 35 U.S.C. 103 rejection is untenable because (1) there is no suggestion to combine the Maguire and Dawson teachings and (2) Maguire and Dawson teach away from each other and away from the claimed invention.

A. Maguire Teaches Superiority of his Knob-and-Groove to prior Pin-in-Hole

In making the present rejection, the Examiner concluded it “would have been obvious to one of ordinary skill in the art to replace the round knobs of Maguire with pin holes in view of the teaching in Dawson and also in Maguire that pins and holes are alternatives for knobs and are considered equivalent parts for performing equivalent functions.” Final Rejection of October 8, 2003, at page 3. Applicants submit that the Examiner either ignored the direction of the Board to consider whether Maguire teaches away from substituting a pin-in-hole for a knob or failed to fully appreciate the extent to which Maguire’s disclosure discourages such a substitution.

Although Maguire acknowledges that pins-in-holes can be used to connect blocks, Maguire clearly teaches that pins-in-holes are not equivalent to knobs and that they do not perform equivalent functions. Maguire points out the deficiencies of prior art pin-in-hole connection systems and the consequent advantages of Maguire’s knob and groove



connection system. For example, Maguire teaches that "...pin connectors tend to shear flexible grid material rendering the wall structurally unsafe" (col. 4, lines 22 and 23). The larger Maguire knob elements are said to reduce shear stress by displacing shearing force over a larger area. Maguire teaches that this preserves the structural integrity of the grid material "...thereby improving the overall strength of the wall" (col. 4, lines 25 to 30). This disadvantage alone, directed to the stability and safety of a wall constructed from Maguire's blocks, would be a significant consideration tending to discourage one of skill in the art from substituting a pin-in-hole for the knob in Maguire's block. However, Maguire provides additional reasons why knobs are superior to pins-in-holes.

Maguire teaches that pins should be avoided since pins "...can easily crack and destroy the retaining walls" (col. 4, lines 49 and 50). Maguire overcomes this problem by use of knobs and grooves which also provide increased strength (col. 4, lines 46 to 51).

Maguire further points out the disadvantages of prior art pin-in-hole connection systems in construction of a retaining wall. Maguire criticizes these systems because they require "...significant on-site labor, careful alignment of the blocks as well as the securing of each block element with the aforementioned pins" (col. 1, lines 24 to 27). Maguire's knob and groove block, on the other hand, is said to be "...easily stacked to form a secure retaining wall with minimal labor and cost" (col. 1, lines 57 and 58).

A further disadvantage of prior art pin-in-hole block systems recognized by Maguire is the difficulty to store and transport them to a job site. Maguire points out that such blocks are hard to strap and palletize and require excess handling to stabilize the blocks against shifting in travel (col. 1, lines 35 to 42). Maguire's blocks stack one on top of another with the lower block knobs engaging grooves on the lower surface of the upper

block to form an interlocking arrangement. This interlocking of stacked blocks is stated by Maguire to insure secure stacking and palleting for shipment and travel (col. 2, lines 11 to 22).

Applicants submit that the real issue in deciding whether the pending claims are unobvious is not whether pin-in-hole connection systems were a well known means of connecting courses of blocks in a retaining wall. Clearly such systems were well known. Rather, the issue is precisely whether a person of skill would modify the particular blocks disclosed in Maguire by substituting a pin-in-hole for the knob.

The disadvantages of pin-in-hole connection systems pointed out by Maguire would clearly direct one of ordinary skill away from substituting a pin-in-hole for the knob of the Maguire block. For one of ordinary skill to make this substitution one would have to ignore Maguire's teaching that such a substitution would result in a block system that is more difficult to stack and pallet, more difficult and costly to ship, require more labor and time in constructing a retaining wall, and result in a retaining wall that is more likely to shear stabilizing grid material resulting in a wall that is structurally unsafe. Applicants submit that it is unreasonable to conclude that a person of skill with knowledge of the teachings contained in Maguire would modify the Maguire block in the manner necessary to support the Examiners rejection. Therefore, Applicants respectfully request that this rejection be withdrawn.

B. Differences between Maguire's Knob-and-Groove and Dawson's Pin-in-Hole

Maguire and Dawson taken together do not support the broad proposition that knobs-and-grooves are equivalent to pins-in-holes in this art area.

In FIG. 1 of Maguire, two rows of spaced upwardly extending knobs 32 are on the top surface 22 of block 10, three knobs 32 are in the row closer to the front

surface 26, and two knobs 32 are in the row closer to the back surface (col. 2, line 40 – col. 3, lines 17). The Maguire FIG. 1 block has a minimum of five knobs 32 of different sizes. According to Dawson, the pin-in-hole interlock includes at least two pins 44, at least two pin holes 36, 38 and at least two pin-receiving pockets 40 for receiving pins 44 from adjacent blocks in a different level (col. 4, lines 30-37).

The Maguire knobs 32 are of different sizes and shapes, of circular or preferably oval configuration, and may be larger at their base for a tight, wedge-like fit in the grooves 30 (FIGS. 1 and 3-5; col. 3, lines 5-17; col. 3, line 49 – col. 4, line 11; col. 4, lines 52-57). The Dawson pins 44 all have a single uniform cylindrical cross-section (FIG. 1; col. 6, lines 49-63). Dawson's pin receiving pockets 40 are much larger than the pins 44 for an intentionally loose fit, allowing blocks in succeeding rows to slide horizontally relative to each other (FIGS. 1-3, 5-8, 10a and 11; col. 6, lines 40-63; col. 7, lines 57-58).

Maguire's knobs 32 are formed in one piece with block 10 of the same block material (FIGS. 1, 3-5; col. 3, lines 29-36). Dawson's pins 44 are separate elements and of a different material than the block (FIG. 1; col. 6, lines 49-63).

FIG. 2 of Maguire shows three parallel spaced grooves 30 extending between vertical sides of the block 10. Each groove 30 interfits with more than one knob 32. When the knobs 32 interfit with the grooves 30, one groove 30 is always vacant. Maguire, FIG. 6; col. 2, line 63 – col. 3, line 17. Dawson's holes 36, 38 and pin receiving pockets 40 are positioned discretely and do not extend across the block surface. The pins 44 of Dawson have a one-to-one relationship with their respective holes 36, 38 and pin receiving pockets 40. None of Dawson's pin receiving pockets 40 is vacant in the constructed wall. Dawson, FIGS. 1-3, 5-9a, 10a and 11; col. 6, line 40 – col. 7, line 15.

Maguire's grooves 30 extend into the block only to a depth to accommodate the height of the knobs 32 and do not extend through the body of block 10 (FIGS. 2, 3, 6; col. 2, line 63 – col. 3, line 17). Dawson's pin receiving

pockets 40 extend from the block top surface 12 (col. 6, lines 40-48) through to the block bottom surface (col. 6, line 49-col. 7, line 4).

Maguire's grooves 30 are longitudinally straight and parallel to each other. A plurality of Maguire's knobs 32 fit into each groove 30. Maguire, FIGS. 1-3 and 6; col. 3, lines 5-17. Dawson's pin-receiving pockets 40 are generally oval or kidney-shaped. Each of Dawson's pins 44 can fit in only a single pin-receiving pocket 40. Dawson, FIGS. 1-3, 5-9a, 10a and 11; col. 6, line 40 – col. 7, line 15.

Maguire always has one more groove 30 than the number of rows of knobs 32 (col. 3, lines 14-17). Dawson has only one pin-receiving pocket 40 per pin 44 (FIGS. 1-3, 5-9a, 10a and 11; col. 6, line 40 – col. 7, line 15).

Maguire teaches that a pin-in-hole interlock is inferior to his very specific knob-and-groove interlock (col. 1, lines 4-67; col. 4, lines 20-31, 45-51). Dawson teaches that pin-in-hole interlock is merely an alternative to his type of knobs; neither is preferred (col. 7, lines 16-37). Further, the knobs of Dawson are radically different in structure and function from the particular Maguire knob-and-groove interlock, as further explained below.

Neither Maguire nor Dawson teach or suggest, separately, together or with any art of record, "first and second planes ... located approximately midway between the plane of symmetry and laterally outermost points of the first and second side wall faces," as claim 3 requires. The rejection of record does not interpret how these references suggest these features. Maguire does not show or suggest these features, because Maguire does not have a "pin receiving cavity" or a "pin hole." Dawson does not show or suggest these features, because Dawson has no plane that passes through both a "pin receiving cavity" 40 and a "pin hole" 36 and is parallel to a plane of symmetry of the block. Note that the Dawson "pin receiving cavities" 40 are positioned more widely apart than are the Dawson "pin holes" 36.

Neither Maguire nor Dawson teach or suggest, separately, together or with any art of record, “first and second pin receiving cavities each [having] a rear wall extending generally perpendicularly to the plane of symmetry,” as claim 4 requires. The rejection of record does not interpret how these references suggest these features. Maguire does not show or suggest these features, because Maguire does not have “pin receiving cavities.” Dawson does not show or suggest these features, because Dawson illustrates the “pin receiving pockets” 40 as generally kidney-shaped and neither shows nor describes them as having a portion that could clearly be termed a “rear wall.”

Neither Maguire nor Dawson teach or suggest, separately, together or with any art of record, “third and fourth pin holes ... disposed on the first and second planes forward of the first and second pin holes so as to provide a reduced or zero predetermined setback,” as claim 5 requires. The rejection of record does not interpret how these references suggest these features. Maguire does not show or suggest these features, because Maguire does not have “pin holes.” Dawson does not show or suggest these features, because Dawson has no third and fourth “pin holes” 38 situated on a plane that passes through both a “pin receiving cavity” 40 and a “pin hole” 36 and is parallel to a plane of symmetry of the block.

Maguire and Dawson taken together do not support the broad proposition that knobs-and-grooves are equivalent to pins-in-holes in this art area.

#### C. Differences Between Maguire’s Knob-and-Groove and Dawson’s Knobs

In making the final rejection the Examiner noted:

Applicant fails to address the teachings of Dawson that clearly show embodiments having either knobs *and grooves* or pins and holes. In view of Dawson’s teaching, it is apparent that knobs *and grooves* are

equivalent structure to pins and holes and can be used interchangeably. (Emphasis supplied.)

(Final Rejection of October 8, 2003, page 4.)

The Examiner is mistaken. Dawson never teaches or suggests “grooves” to interfit with his knobs 46. In Dawson, FIGS. 9a and 9b, two rectangular knobs 46 abut vertical surfaces 48. In Dawson, FIG. 11, two rectangular knobs 46 fit against inside corners on vertical surfaces 26. Dawson shows notches 42 on either side of plant receiving cavity 30, but they are to “accommodate an irrigation pipe or hose so that the vegetation in plant receiving cavities 30 may be watered” (col. 5, line 66 – col. 6, line 2). These notches 42 are not constructed or positioned to interfit with the knobs 46 of the blocks of FIGS. 9a and 9b or of FIG. 11.

The Maguire knobs-and-grooves are not equivalent to the Dawson knobs-and-vertical-surfaces. The structure of the Maguire knobs-and-grooves is described in detail above. Maguire extensively discusses the versatility of the knobs-and-grooves with many variations. The Maguire knobs-and-grooves can engage so that the block front faces align vertically, or incline back (col. 2, lines 11-19; col. 3, lines 1-4, 11-13; col. 3, line 59 – col. 4, line 6). The Maguire knobs-and-grooves can engage to form a convex or concave curved wall (col. 3, lines 49-55) or a circular wall (col. 4, lines 7-11). Dawson describes only two alternative knobs (FIGS. 9a and 9b and FIG. 11) that are completely different from Maguire in structure and function. Dawson does not describe versatility or variation in structure or function for his knobs. The Dawson blocks of FIGS. 9a and 9b or of FIG. 11 can construct only vertically straight walls in horizontally straight lines.

#### D. Differences between Dawson and Maguire Blocks and their Constructed Walls

In addition to differences between the Dawson and Maguire interlocking systems, there are important differences between their blocks and between walls constructed with these blocks.

Maguire's blocks 10 have one or more central holes 18 extending completely through the block 10 body, whose function is to "reduce the bulk and weight of the block" (FIGS. 1-6; col. 2, lines 48-51). Dawson's blocks 10 have a cavity 30 extending only to a bottom wall 32 and the cavity 30 accommodates plants or vegetation (FIGS. 1-11; col. 5, line 50 – col. 6, line 25).

Maguire's central hole 18 is positioned only at the narrow neck region of the block 10, and is covered in the constructed wall (FIGS. 3-4; col. 3, line 37 – col. 4, line 11). Dawson's cavity 30 extends from the narrow neck region on the block 10 toward the front face 20 of the block 10, and is exposed in the constructed wall to receive soil and plants (FIGS. 5-9a, 10a and 11; col. 3, line 52 – col. 4, line 29; col. 6, lines 3-63).

Maguire uses only his disclosed blocks 10 to construct a wall; Maguire does not teach how his blocks 10 may be used with other known blocks to construct a wall (FIG. 3; col. 2, lines 10-22; col. 3, line 37 – col. 4, line 11). Dawson may use his blocks 10 with "conventional non-plantable wall blocks" that have a pin-in-hole interlock (FIGS. 10a-10b; col. 7, lines 38-58). Dawson does not describe any conventional wall blocks with knobs that can interfit with Dawson's blocks that have knobs.

Dawson does not teach or suggest, separately, together or with any art of record, "the side wall faces generally taper from the front face to the rear face," as claim 6 requires. Dawson clearly shows a block in which the front face 20 is narrower than the rear face 22. There is no suggestion, and the rejection of record points to none, that the Dawson block should be constructed with the front face 20 wider than the rear face 22. Although Maguire may show such a taper, the rejection provides no reasoning as how or why it would be obvious to incorporate this feature of Maguire into Dawson.

Neither Maguire nor Dawson teach or suggest, separately, together or with any art of record, that "the head portion has first and second ears ... provided with

a notch to enable the ears to be knocked off the head portion,” as claim 7 requires. The rejection of record does not interpret how these references suggest these features.

Dawson does not teach or suggest, separately, together or with any art of record, “a continuous cavity ... defined by each opening of vertically aligned blocks in the upper course of the blocks communicating with side voids of vertically adjacent blocks in the lower course,” as claims 8 and 9 require. Dawson does not teach or suggest, separately, together or with any art of record, a “retaining wall ... reinforced with rebar and grout, a length of the rebar passing through the continuous cavity secured in the continuous cavity with the grout,” as claim 12 requires, or a “retaining wall [that] incorporates at least one post extending into the continuous cavity and ... secured in the continuous cavity with grout,” as claim 13 requires. Dawson clearly shows a block in which the opening of vertically aligned blocks is a plant receiving cavity 30, which has a lower drainage hole 34 of reduced cross-sectional area. Because Dawson directs his invention to a plantable retaining wall, it would frustrate Dawson’s invention to have a “continuous cavity” vertically through the wall. There is no suggestion, and the rejection of record points to none, that the Dawson block should be constructed with through holes that would provide a continuous cavity in the constructed wall. Without a continuous vertical cavity, there is no place to position rebar, posts or grout. Although Maguire may show such a “continuous cavity,” the rejection provides no reasoning as how or why it would be obvious to incorporate this feature of Maguire into Dawson.

Dawson does not teach or suggest, separately, together or with any art of record, that “the retaining wall is curved,” as claim 10 requires, or “serpentine,” as claim 11 requires. Maguire describes blocks with knobs-and-grooves that engage to form a convex or concave curved wall (col. 3, lines 49-55) or a circular wall (col. 4, lines 7-11). Dawson describes only two alternative knobs (FIGS. 9a, 9b



and FIG. 11), which construct only horizontally straight walls. Although Maguire may show walls that can be “curved” or “serpentine,” the rejection provides no reasoning as how or why it would be obvious to incorporate this curved wall feature of Maguire into Dawson. Placing the Dawson knobs on the Maguire blocks would render Maguire inoperable for the intended purpose of providing walls of various curvatures.

Neither Maguire nor Dawson teach or suggest, separately, together or with any art of record, that “the retaining wall incorporates a geogrid tie-back ... secured with at least one of the first and second pins,” as claim 14 requires. Maguire does not teach or suggest this feature, because Maguire does not use pins. Dawson teaches or suggests this feature only in reference to the then-known prior art (Dawson col. 1, lines 35-39). The rejection provides no reasoning as how or why it would be obvious to incorporate this feature of Dawson’s prior art into Maguire or Dawson.

Neither Maguire nor Dawson teach or suggest, separately, together or with any art of record, that the “retaining wall incorporates a pilaster formed of a column of the blocks set forward from the remainder of the wall,” as claim 15 requires. Neither Maguire nor Dawson teach or suggest any set forward embellishments to their walls, nor how they would be constructed. The rejection provides no reasoning as how or why it would be obvious to incorporate this feature into Maguire or Dawson.

E. Neither Reference Teaches Using Knob-and-Groove and Pin-in-Hole Together

No record reference teaches that these interlocks may be used on the same block or that blocks having these different interlocks can be used together to construct a wall. Maguire teaches that only his knob-and-groove blocks may be used to construct a wall; they cannot be used with any other blocks of other shape or interlock. Maguire never teaches that his knobs can fit in the pin receiving

holes of his acknowledged prior art. Neither reference suggests that the Maguire knobs can fit in the Dawson pin-receiving holes to construct a wall. Dawson teaches that his pin-in-hole blocks may be used alone or with conventional pin-in-hole blocks to construct a wall. Dawson teaches that his blocks with knobs can only be used with each other to construct a wall. Dawson never teaches using his pin-in-hole blocks and his knob blocks together to construct a wall. Dawson never teaches a block with both pin-in-hole and knob interlock.

Accordingly, it is Applicants' position that (1) there is no suggestion to combine Maguire and Dawson and that (2) Maguire and Dawson teach away from each other and away from the presently claimed invention. There is no suggestion to combine these references because Maguire teaches knobs-and-grooves to be superior to pins-in-holes, while Dawson teaches them to be merely alternatives with no preference for either one. Maguire and Dawson teach away from each other and away from the claimed invention because of important differences in structure and function. Pertinent case law amply supports Applicants' position.

#### Discussion of Relevant Case Law

(1) There must be some suggestion to combine prior art teachings.

An invention cannot be shown to be obvious over combined prior art references absent a suggestion to combine the prior art references. "Obviousness cannot be established by combining the teachings of the prior art to produce the claimed invention, absent some teaching suggestion or incentive supporting the combination." *In re Geiger*, 2 USPQ 2d 1276, 1278 (Fed. Cir. 1987). At best, in view of these disclosures, one skilled in the art might find it obvious to try various combinations of the elements of known blocks and known walls. However, "obvious to try" is not the standard of 35 U.S.C. 103. *Id.*, and cases cited therein. The remarks above support Applicants' position that these references do not provide motivation for the combination the final rejection suggests. The only way

the Examiner can conclude that these disparate references can be combined is by using the teachings of Applicants' own disclosure. The Federal Circuit is adamant in stating that this approach cannot support a rejection under 35 U.S.C. 103:

It is impermissible to use the claimed invention as an instruction manual or "template" to piece together the teachings of the prior art so that the claimed invention is rendered obvious. This court has previously stated that "[o]ne cannot use hindsight reconstruction to pick and choose among isolated disclosures in the prior art to deprecate the claimed invention."

*In re Fritch*, 23 USPQ 2d 1780, 1784 (Fed. Cir. 1992)(quoting *In re Fine* 5 USPQ 2d 1596, 1600 (Fed. Cir. 1988)).

In a footnote in *Fritch*, the Federal Circuit criticized the Examiner and the Board for suggesting "a proposed modification inappropriate for an obviousness inquiry when the modification rendered the prior art reference inoperable for its intended purpose." *Fritch*, at 1783, fn. 12.

As noted above, the present claims and Maguire require an opening extending through the entire block to form a vertical channel in the constructed wall to hold reinforcing members. Dawson's blocks must each have a bottom wall to retain soil and vegetation. The opening required by the present claims and Maguire would render Dawson's block inoperable for the intended purpose of providing a plantable wall.

As also noted above, Maguire describes blocks with knobs-and-grooves that engage to form a convex or concave curved wall (col. 3, lines 49-55) or a circular wall (col. 4, lines 7-11). Dawson describes only two alternative knobs (FIGS. 9a, 9b and FIG. 11), which construct only horizontally straight walls. Placing the Dawson knobs on the Maguire blocks would render Maguire inoperable for the intended purpose of providing walls of various curvatures.

“The mere fact that the prior art may be modified in the manner suggested by the Examiner does not make the modification obvious unless the prior art suggested the desirability of the modification.” *Id.* (citing *In re Gordon*, 221 USPQ 1125, 1127 (Fed. Cir. 1984)).

(2) References teaching away from each other do not suggest a claimed invention.

*Gurley* states that a reference may be said to teach away from the claimed invention when “a person of ordinary skill, upon reading the reference, would be discouraged from following the path set out in the reference, or would be led in a direction divergent from the path that was taken by the applicant.” *Gurley*, at 1131. Here, a skilled artisan faces two different teachings regarding interlocking blocks and walls constructed from them. Except that each reference concerns such blocks and walls, the reference teachings diverge from each other and do not suggest the claimed invention.

A reference teaches away if it suggests that a line of development flowing from the references’ disclosures is unlikely to produce the result the applicant sought. Despite the fact that certain elements of Applicants’ claims are known in the prior art, to combine them together as Applicants have done, requires that a person reasonably skilled in the art must ignore the facts that (1) Maguire, *inter alia*, teaches that pin-in-hole connections are inferior to his specific knob-and-groove connections; and (2) Dawson, *inter alia*, would be rendered inoperative for his intended purpose of providing a plantable wall by the requirement of the present claims and Maguire for a central opening extending through the entire block. *United States v. Adams*, 148 USPQ 479, 484 (CCPA 1966) (“known disadvantages in old devices which would naturally discourage the search for new inventions may be taken into account in determining obviousness”).

**(9) APPENDIX**

The appealed claims are presented in the attached appendix.

**CONCLUSION**

The rejection of record does not establish the unobviousness of the present claims under 35 U.S.C. 103 over the prior art of record. Withdrawal of this ground of rejection and passage of this case to issue is requested.

If any additional fees are due in connection with the filing of this paper, please charge the fees to our Deposit Account No. 16-2312. If a fee is required for an extension of time under 37 C.F.R. § 1.136 not accounted for above, such an extension is requested and the fee should also be charged to our deposit account.

Respectfully submitted,

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## Appendix

1. (Amended) A retaining wall block having parallel top and bottom faces, a front face, a rear face, first and second side wall faces and a vertical plane of symmetry extending between the front and rear faces, the block comprising:
  - a body portion including the front face,
  - a head portion including the rear face,
  - a neck portion connecting the body portion and the head portion, the body, head and neck portions each extending between the top and bottom faces and between the first and second side wall faces,
  - an opening extending through the neck portion from the top face to the bottom face, the opening dividing the neck portion into first and second neck wall members extending rearwardly from the body portion to the head portion,
  - first and second pin holes each disposed in the body portion and opening onto the top face, the first and second pin holes being configured for receiving a pin with a free end of the pin protruding beyond the top face,
  - first and second pin receiving cavities each disposed in the body portion and opening onto the bottom face, the first and second pin receiving cavities being configured for receiving the free end of a pin received in a pin hole of an adjacent block disposed therebeneath so as to interlock the blocks with a predetermined setback,
  - wherein the neck wall members, the pin holes and the pin receiving cavities are positioned such that a first plane extending parallel to the plane of symmetry passes through the first pin receiving cavity, the first pin hole and the first neck wall member and a second plane extending parallel to the plane of symmetry passes through the second pin receiving cavity, the second pin hole and the second neck wall member.

2. (Canceled)
3. (Original) The retaining wall block of claim 1 wherein the first and second planes are located approximately midway between the plane of symmetry and laterally outermost points of the first and second side wall faces, respectively.
4. (Original) The retaining wall block of claim 1 wherein the first and second pin receiving cavities each have a rear wall extending generally perpendicularly to the plane of symmetry.
5. (Amended) The retaining wall block of claim 1 wherein the block further comprises third and fourth pin holes each disposed in the body portion and opening onto the top face, the third and fourth pin holes being configured for receiving a pin with a free end of the pin protruding beyond the top face, the third and fourth pin holes being disposed on the first and second planes forward of the first and second pin holes so as to provide a reduced or zero predetermined setback.
6. (Original) The retaining wall block of claim 1 wherein the side wall faces generally taper from the front face to the rear face.
7. (Original) The retaining wall block of claim 1 wherein the head portion has first and second ears extending laterally beyond the first and second neck wall members, respectively, the first and second ears each being provided with a notch to enable the ears to be knocked off the head portion.

8. (Amended) A retaining wall comprising at least one lower course and at least one upper course, each course comprising a plurality of blocks laid in a running bond pattern,

each block having parallel top and bottom faces, a front face, a rear face, first and second side wall faces and a vertical plane of symmetry extending between the front and rear faces, the block comprising:

a body portion including the front face,

a head portion including the rear face,

a neck portion connecting the body portion and the head portion, the body, head and neck portions each extending between the top and bottom faces and between the first and second side wall faces,

an opening extending through the neck portion from the top face to the bottom face, the opening dividing the neck portion into first and second neck wall members extending rearwardly from the body portion to the head portion,

first and second pin holes each disposed in the body portion and opening onto the top face, the first and second pin holes being configured for receiving a pin with a free end of the pin protruding beyond the top face,

first and second pin receiving cavities each disposed in the body portion and opening onto the bottom face, the first and second pin receiving cavities being configured for receiving the free end of a pin received in a pin hole of an adjacent block disposed in the block in the lower course so as to interlock the blocks with a predetermined setback,

wherein the neck wall members, the pin holes and the pin receiving cavities are positioned such that a first plane extending parallel to the plane of symmetry passes through the first pin receiving cavity, the first pin hole and the first neck wall member and a second plane extending parallel to the



plane of symmetry passes through the second pin receiving cavity, the second pin hole and the second neck wall member;

first and second pins disposed in the first and second pin holes, respectively, of a block in the lower course, the first pin having a first free end protruding beyond the top face of the block, the second pin having a second free end protruding beyond the top face of the block, the first free end being received in a pin receiving cavity of a first block in the upper course, the second free end being received in a pin receiving cavity of a second block in the upper course, a continuous cavity being defined by each opening of vertically aligned blocks in the upper course of the blocks communicating with side voids of vertically adjacent blocks in the lower course,

the side voids of a block being defined between the head and body portions on either side of the neck portion of the block.

9. (Original) The retaining wall of claim 8 wherein the retaining wall is straight.
10. (Original) The retaining wall of claim 8 wherein the retaining wall is curved.
11. (Original) The retaining wall of claim 8 wherein the retaining wall is serpentine.
12. (Amended) The retaining wall of claim 8 wherein the retaining wall is reinforced with rebar and grout, a length of the rebar passing through the continuous cavity, the rebar being secured in the continuous cavity with the grout.

13. (Amended) The retaining wall of claim 8 wherein the retaining wall incorporates at least one post extending into the continuous cavity and protruding from the upper course, the at least one post being secured in the continuous cavity with grout.

14. (Amended) The retaining wall of claim 8 wherein the retaining wall incorporates a geogrid tie-back disposed between the upper and lower courses, the geogrid tie-back having apertures and being secured with at least one of the first and second pins passing through the apertures thereof.

15. (Original) The retaining wall of claim 9 wherein the retaining wall incorporates a pilaster formed of a column of the blocks set forward from the remainder of the wall.